

Changing the future of health care. Together.




[LEARN MORE](#)

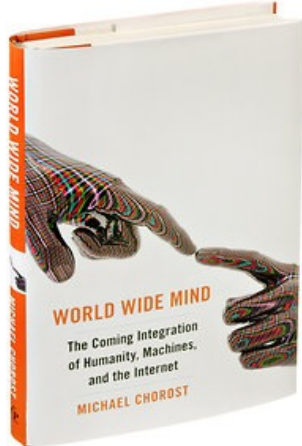
BOOKS ON SCIENCE

Imagining a World of Total Connectedness, and Its Consequences

By KATHERINE BOUTON
Published: February 14, 2011

Imagine, Michael Chorost proposes, that four police officers on a drug raid are connected mentally in a way that allows them to sense what their colleagues are seeing and feeling. Tony Vittorio, the captain, is in the center room of the three-room drug den.

[Enlarge This Image](#)



William P. O'Donnell/The New York Times

He can sense that his partner Wilson, in the room on his left, is not feeling danger or arousal and thus has encountered no one. But suddenly Vittorio feels a distant thump on his chest. Sarsen, in the room on the right, has been hit with something, possibly a bullet fired from a gun with a silencer.


Vittorio glimpses a flickering image of a metallic barrel pointed at Sarsen, who is projecting overwhelming shock and alarm. By deducing how far Sarsen might have gone into the room and where the gunman is likely to be standing, Vittorio fires shots into the wall that will, at the very least, distract the gunman and allow Sarsen to shoot back. Sarsen is saved; the gunman is dead.

That scene, from his new book, "World Wide Mind," is an example of what Mr. Chorost sees as "the coming integration of humanity, machines, and the Internet." The prediction is conceptually feasible, he tells us, something that technology does not yet permit but that breaks no known physical laws.

Related


Excerpt: 'World Wide Mind'
(February 15, 2011)


RSS Feed


 [Get Science News From The New York Times »](#)


Mr. Chorost also wrote "Rebuilt," about his experience with [deafness](#) and his decision to get a [cochlear implant](#) in 2001. In that eloquent and thoughtful book, he refers to himself as a cyborg: He has a computer in his skull, which, along with a second implant three years ago, artificially restores his hearing. In "World Wide Mind," he writes, "My two implants make me irreversibly computational, a living example of the integration of humans and computers."

He takes off from his own implanted computer to imagine a world where people are connected by them. The implanted computer would work something like his BlackBerry,

 RECOMMEND


 TWITTER


 LINKEDIN

 SIGN IN TO E-MAIL


 PRINT


 REPRINTS

 SHARE



Log in to see what your friends are sharing on nytimes.com. [Privacy Policy](#) | [What's This?](#)

 [Log In With Facebook](#)


What's Popular Now 

Changing the future of health care. Together.




[LEARN MORE](#)

Today's Headlines Daily E-Mail

 Sign up for a roundup of the day's top stories, sent every morning.

[Sign Up](#)

[See Sample](#) | [Privacy Policy](#)

MOST POPULAR

E-MAILED BLOGGED SEARCHED VIEWED

1. PAUL KRUGMAN: Disdain for Workers
2. Life Spans Shrink for Least-Educated Whites in the U.S.
3. DAVID BROOKS: Temerity at the Top
4. Overnighter: The Secret Little Sister of the Italian Lakes
5. Campaign Stops: I Know Why the Caged Bird Shrieks
6. 36 Hours in Baltimore
7. NICHOLAS D. KRISTOF: It Takes One to Know One
8. GAIL COLLINS: Mitt's Snake-Bit Season
9. A Violin Once Owned by Goebbels Keeps Its Secrets
10. Coptic Scholars Doubt and Hail a Reference to Jesus' Wife

[Go to Complete List »](#)

he explains, in that it would let people “be effortlessly aware of what their friends and colleagues are doing.” It would let each person know what the others “are seeing and feeling, thus enabling much richer forms of communication.”

Cool. Maybe. But beginning with privacy issues, the hazards are almost countless.

In discussing one of them, he cites the work of [Dr. John Ratey](#), a professor of [psychiatry](#) at Harvard who believes people can be physically addicted to e-mail. “Each e-mail you open gives you a little hit of [dopamine](#),” Mr. Chorost writes, “which you associate with satiety. But it’s just a little hit. The effect wears off quickly, leaving you wanting another hit.”

Dr. Ratey, he says, calls this “acquired [attention deficit disorder](#).” Think about how this addiction to the quick informational hit would be compounded many times over by those implanted BlackBerrys shooting off constant information. “The effort would be so low, the rewards so intermittent, and the payoff so good, that a savage compulsion would result.”

Recognizing these dangers, and his own isolation, Mr. Chorost set out to make human contact. About to turn 40, in 2005, he had never been in love. Obsessed with the fact that he is short and deaf, by his own description, he undermined relationships. He enrolled in a workshop that a friend told him was about “love, sexuality and intimacy.”

The workshop was such a success that he attended six more and then became an assistant. Passages describing workshop experiences alternate with erudite passages about technology. Sometimes it’s hard to see the connection. Often it’s cringe-inducing.

Halfway into the weekend, clothes come off and participants are urged to hug someone: “I peered around, looking for likely candidates. I met the eyes of a chubby woman about my height, clothed only from the waist down. She smiled warmly and held out her arms.”

A fascinating discussion of [optogenetics](#) research is followed by the story of how Mr. Chorost met the woman who is now his wife, Victoria, on a dating Web site. I’m happy for him — Victoria sounds like a wonderful person. But as in “Rebuilt,” he’s shared too much intimacy, too many confessions.

Avert your eyes and get back to technology. Mr. Chorost’s curiosity is contagious. Even if you don’t quite follow the explanation and graphics about how the brain generates speech (discussing the work of computational neuroscientists at Harvard), you may be glad you tried. Edited out of the final book (I read an early galley proof) is the author’s assurance that if you just get through a few technical paragraphs, you’ll understand “how specific memories and perception can be manipulated.”

I didn’t. But I enjoyed the effort. And I liked the author’s belief in my ability to follow what he was saying.

Michael Chorost is not only a clear and concise science writer, but also a visionary. The coming integration of humans and machines may be a bit further off than he thinks, but he convinced me that we will get there someday.

A version of this review appeared in print on February 15, 2011, on page D3 of the New York edition.

 SIGN IN TO E-MAIL

 PRINT

 REPRINTS

 , Get 50% Off The New York Times & Free All Digital Access.



What's next for Carly Rae Jepsen?

ALSO IN ARTS »

- Scenes from the new season
- The films of Tim Burton

nytimes.com

ARTS

ADVERTISEMENTS



**ELECTION 2012
FOR iPhone®
AND ANDROID™**

DOWNLOAD NOW ▶

The New York Times

Ads by Google

what's this?

[Lexington Implant Dentist](#)

Enjoy permanent dentures with modern tooth implants
www.SmilesByDesign.info

[Need Dental Implants?](#)

Get The Latest Implant Technology.
0% Financing! Call For Consult
www.yoursalem dentist.com

[Siemens Hearing Aids](#)

Quality hearing aids for over 130 years. Learn more today!
usa.siemens.com/hearingaids

Ads by Google

what's this?

21+ with a Tooth Implant?

Learn About A New Study at Forsyth
Institute, Compensation is Possible
www.forsythstudy.org/dental-implant

Get Free E-mail Alerts on These Topics

- Cochlear Implants
- Computers and the Internet
- Books and Literature
- Brain

INSIDE NYTIMES.COM

MAGAZINE »



Mark Bittman Visits the
Yucatán Peninsula

OPINION »

Editorial: Seasons of Mists, if Not in Manhattan

What's missing in New
York City is a seasonal
fog, the kind that
foretells autumn.

TELEVISION »



Emmy Anticipation Runs
High for PBS

OPINION »



Op-Ed: How Green Was My
Lawn

REAL ESTATE »



A Sexy Investment, but
Read the Fine Print

THEATER »



Jake Gyllenhaal Makes New
York Stage Debut

[Home](#) | [World](#) | [U.S.](#) | [N.Y. / Region](#) | [Business](#) | [Technology](#) | [Science](#) | [Health](#) | [Sports](#) | [Opinion](#) | [Arts](#) | [Style](#) | [Travel](#) | [Jobs](#) | [Real Estate](#) | [Autos](#) | [Back to Top](#)

© 2011 The New York Times Company | [Privacy](#) | [Your Ad Choices](#) | [Terms of Service](#) | [Corrections](#) |  [RSS](#) | [First Look](#) | [Help](#) | [Contact Us](#) | [Work for Us](#) | [Advertise](#) | [Site Map](#)